

Article 4

Overlay Zoning Districts

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See Also:

*Article 3,
Zoning Districts*

*Article 5,
Planned Unit
Development*

4.1 Establishment & General Requirements

A. **Establishment of Overlay Districts:** The overlay districts noted below have been established to provide additional development requirements that respond to unique characteristics of the properties to which they apply. The development of properties that are located in one or more overlay districts shall be subject to the requirements of both the overlay district(s) and the underlying zoning district in which they are located. The following overlay zoning districts shall apply to properties as specified in the description of each district in this Article.

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B. **Effect of Planned Unit Development District:** All Planned Unit Developments shall be consistent with the requirements of Article 5 of this Ordinance. Planned Unit Developments shall not be subject to the requirements of any overlay district, unless otherwise specified as an element of the Planned Unit Development Final Plan.

C. **Land Uses:** All land uses that are permitted, prohibited or a conditional use in any underlying zoning district to which an overlay district is applied shall remain permitted, prohibited, or conditional uses unless otherwise specified by the applicable overlay district(s).

D. **Lot, Yard, & Development Requirements:** Any lot, yard, and development requirements established by an overlay district shall apply as follows:

1. Replacement of Underlying District Requirements: All lot, yard, and development requirements established by an underlying zoning district shall apply unless alternate requirements are provided by the overlay district(s).
2. Additional Overlay District Requirements: Properties located in any overlay district(s) shall also be subject to any additional lot, yard, and development requirements established by the overlay district(s).

4.2 Airport Hazard Area (AH-OL)

- A. **Boundaries & Exemptions:** The Airport Hazard Area Overlay District shall apply to all properties included in an Approach Zone, Transition Zone, Horizontal Zone, and/or Conical Zone as identified by the Columbus Municipal Airport Plan of current adoption.
- B. **Uses:** The following use restrictions shall apply to that portion of the Approach Zone within a horizontal radius of 10,000 feet from the airport reference point, as identified by the Columbus Municipal Airport Plan of current adoption.
1. **Prohibited Uses:** The following types of uses shall be prohibited:
 - a. *Residential Uses:* Multi-family Dwelling, Nursing Home / Assisted Living Facility, and Retirement Center;
 - b. *Institutional Uses:* Correctional Institution, Community Center, Day Care Center, Hospital, Private Club, Clinic, School, University or College, Trade or Business School, and Worship Facility;
 - c. *Park Uses:* Athletic Complex;
 - d. *Commercial Uses:* Hotel / Motel, Recreation Uses (Medium Scale), and Instructional Center.
 2. **Conditional Uses:** The following types of uses shall be conditional (provided that they are also listed as permitted or conditional uses in the underlying zoning district): any uses involving the sales, storage, manufacture, and/or distribution of gasoline, propane, or other flammable, toxic, explosive, radioactive, or bio-hazardous materials in a quantity and of a type that would further jeopardize the health of aircraft occupants, by-standers, and emergency personnel in the event of an aircraft accident.
- C. **Development Requirements:** All development within the boundaries of the AH-OL district shall comply with the following development requirements:
1. **General Use Restrictions:** No land use within the AH-OL district shall:
 - a. create electrical interference with radio communication between the airport and aircraft or create interference with navigational aids employed by aircraft;
 - b. make it difficult for pilots to distinguish between airport lights and other lights;
 - c. result in glare in the eyes of pilots using the airport;
 - d. create pollution or other conditions that would impair visibility in the vicinity of the airport; or
 - e. otherwise endanger the landing, taking-off, or maneuvering of aircraft.
 2. **Bird Strike Hazard Restrictions:** No waste disposal site, solid waste transfer station, or other bird attracting use shall be located within the AH-OL district without the approval of the Federal Aviation Administration.

Intent

The purpose of this Chapter is to establish specific zoning requirements for the vicinity of the Columbus Municipal Airport in order to maintain the vitality and functionality of the airport, protect persons on the ground and traveling by air from hazards associated with airplane flight, and reduce land use conflicts in the area of the airport.

The area around the airport presents unique considerations for the height of structures, the presence of factors that interfere with safe flight, and large gatherings of the public that require the establishment of additional development requirements to meet the goals of the Comprehensive Plan and fulfill the purpose of this Ordinance.

4.2 Airport Hazard Area (AH-OL) (cont.)

3. Height Restrictions: No structure shall exceed the height restrictions established by Federal Aviation Regulations Part 77 as incorporated in the Columbus Municipal Airport Plan of current adoption, and adopted by reference as an element of this Ordinance. The owner of any legal non-conforming structure or tree in the AH-OL district is required to permit the installation, operation, and maintenance of any markers and lights deemed necessary by the Columbus Board of Aviation Commissioners to indicate the presence of such hazards.

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4.3 Wellfield Protection (WP-OL)

- A. **Boundaries & Exemptions:** The Wellfield Protection Overlay District (WP-OL) shall apply to the entire area of all properties included in whole or in part within the boundaries of a 5-year wellfield time-of-travel area. These areas include any shown on the Official Zoning Map, as well as by the following: the Columbus Wellfield Protection Management Plan, as updated periodically.
- B. **Uses:** All land uses shall generally be permitted, non-permitted or conditional consistent with the provisions of the underlying zoning district, unless specifically noted below.
1. **Prohibited Uses:** The following uses shall be prohibited within the Wellfield Protection Overlay District:
 - a. Mineral Extraction
 - b. Farm (CFO/ CAFO type I) and Farm (CFO/ CAFO type II)
 - c. Hazardous Materials Production
 2. **Conditional Uses:** If any of the following uses is listed as permitted or conditional in the underlying zoning district, they shall be allowed only as a conditional use in the Wellfield Protection Overlay District:
 - a. *Park Uses:* Campground / RV Park; Driving Range (as a Primary Use); Golf Course.
 - b. *Public / Semi-Public Uses:* Airport; Animal Shelter; Government Facility (Non-Office); Hospital; and Clinic.
 - c. *Commercial Uses:* Agricultural Supply Facility; Auto-Oriented Uses (Small Scale); Auto-Oriented Uses (Medium Scale); Auto-Oriented Uses (Large Scale); Auto Rental; Equipment Rental; Farm Equipment Sales and Service; Greenhouse / Plant Nursery; Kennel; Livestock Auction / Sales Facility; and Truck Stop / Travel Center.
 - d. *Industrial Uses:* Agricultural Products Processing; Boat / RV Storage Facility (outdoor); Concrete / Asphalt Production Facility; Contractor's Office / Workshop; Dry Cleaners (commercial); Food & Beverage Production; General Industrial Production; Light Industrial Assembly & Distribution; Light Industrial Processing & Distribution; Research & Development Facility; Truck Freight Terminal; Truck Sales & Service Center; and Waste Disposal Facility.
 - e. *Uses not Specified:* The Planning Director may identify other uses to be considered as conditional uses if they are specifically demonstrated to pose a hazard to the drinking water supply due to chemicals used on-site or by-products of on-site activities. Some examples of this type of use may include building cleaning or maintenance service companies, engineering or vocational shops or laboratories, landscape or lawn installation or maintenance services, and mortuaries.

Intent

This Chapter is intended to safeguard the public health, safety, and general welfare of those persons who rely on public and / or utility-operated wellfields for clean, safe drinking water. These regulations are intended to prevent land uses and certain development practices that commonly have the potential to degrade water quality by introducing chemicals, organic hazards, and other potentially harmful elements into the ground water system within a 5-year time-of-travel area of the wellfields. This includes the introduction of hazardous materials into the area, the creation of hazardous by-products from on-site activities, and the alteration of the land in a manner that increases the exposure of the ground water system to potential contaminants.

4.3 Wellfield Protection (WP-OL) (cont.)

- C. **Development Requirements:** All development within the boundaries of the Wellfield Protection Overlay District shall comply with all applicable state, federal, and local regulations, in addition to the following development requirements.
1. Minimum Setback from Well: No structure or septic field shall be located closer to any wellhead than the sanitary setback specified by the Indiana Department of Environmental Management, as periodically updated.
 2. Abandoned Wells: All known abandoned wells shall be identified and sealed consistent with any applicable requirements of the applicable water utility and the Indiana Department of Natural Resources per 312 IAC 13-10.
 3. Drainage Facilities: The use of dry wells shall be prohibited. A municipal storm sewer system shall be used if available to the subject property. No surface impoundments, ponds, or lagoons shall be established except for the purpose of (a) storm water retention and detention or (b) recreation and landscaping purposes.
 4. Public Sewer Service: All development, with the exception of a single-family residence located on a lot of at least 1 acre, shall be connected to a public sewer. All floor drains must be connected to the sanitary sewer or routed to a temporary holding area for proper disposal.
 5. Storage and Transfer of Potential Contaminants: All areas that may be used for the storage and / or transfer of potential ground water contaminants, such as fuel storage tanks, shall be constructed in a manner to prevent any release from the area from reaching the ground water. The containment area shall be capable of, at a minimum, containing 110% of the potentially hazardous material for which the area has storage and transfer capacity.
 7. Auto Repair Facilities: All vehicle and auto repair facilities shall be located within an enclosed building that includes a floor constructed of material that forms an effective barrier to prevent the migration of fluids or other materials into the ground water.

4.4 Historic Resource (HR-OL)

- A. **Boundaries & Exemptions:** The Historic Resource Identification Overlay District shall apply to all properties either (1) as identified on the Official Zoning Map or (2) included in the following area(s): Sand Creek Township Rural Historic District.
- B. **Uses:** All land uses shall generally be permitted, prohibited or conditional as consistent with the provisions of the underlying zoning district.
- C. **Development Requirements:** All development within the boundaries of the HR-OL district shall comply with the development requirements that apply to the underlying zoning districts. However, property owners and developers within this district are encouraged to recognize and protect historic structures and character.

Intent

This Chapter is intended to encourage property owners and the development community to recognize clearly identified and documented historic areas in the community. It is further intended to provide information about local historic assets to the public and the development community, as well as support the preservation and enhancement of these resources. In no instance shall this Chapter be interpreted as imposing any additional development restrictions or limitations on private property.

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Note: Participation by the City of Columbus and Bartholomew County in the National Flood Insurance Program (NFIP) requires the adoption of flood hazard regulations that meet certain minimum criteria. This Chapter is based on the Indiana Department of Natural Resources model flood hazard area ordinance, which has been developed to assist local governments in meeting the minimum NFIP criteria. Instances in which this Chapter differs from the IDNR model ordinance have been noted to assist with local administration.

4.5 Flood Hazard Area (FH-OL)

A. **Authority & Purpose:** The Indiana Legislature has in IC 36-7-4 and IC 14-28-4 granted the power to local government units to control land use within their jurisdictions. Therefore, the City of Columbus and Bartholomew County adopt the following floodplain management regulations.

1. **Findings of Fact:**

- a. **Flood Hazard Identified:** The flood hazard areas of the City of Columbus and Bartholomew County are subject to periodic inundation which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
- b. **Flood Hazard Causes:** Causes for flood losses include the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, flood-proofed, or otherwise unprotected from flood damages.

2. **Purpose:** It is the purpose of this Chapter to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- a. Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, which result in damaging increases in erosion or in flood heights or velocities;
- b. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- c. Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;
- d. Control filling, grading, dredging, and other development which may increase erosion or flood damage;
- e. Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands; and,
- f. Make federally subsidized flood insurance available for structures and their contents in the City of Columbus and Bartholomew County by fulfilling the requirements of the National Flood Insurance Program.

3. **Objectives:** The objectives of this Chapter are:

- a. To protect human life and health;
- b. To minimize expenditure of public money for costly flood control projects;

4.5 Flood Hazard Area (FH-OL) (cont.)

- c. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- d. To minimize prolonged business interruptions;
- e. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, and sewer lines, streets, and bridges located in floodplains;
- f. To help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight areas, and;
- g. To ensure that potential homebuyers are notified that property is in a flood area.

B. Definitions: Unless specifically defined below, words or phrases used in this Chapter shall be defined by Article 14 of this Ordinance and interpreted so as to give them the meaning they have in common usage and to give this Chapter its most reasonable application.

A zone: means portions of the SFHA in which the principal source of flooding is runoff from rainfall, snowmelt, or a combination of both. In A zones, floodwaters may move slowly or rapidly, but waves are usually not a significant threat to buildings. These areas are labeled as Zone A, Zone AE, Zones A1-A30, Zone AO, Zone AH, Zone AR and Zone A99 on a FIRM or FHBM. The definitions are presented below:

Zone A: Areas subject to inundation by the one-percent annual chance flood event. Because detailed hydraulic analyses have not been performed, no base flood elevation or depths are shown. Mandatory flood insurance purchase requirements apply.

Zone AE and A1-A30: Areas subject to inundation by the one-percent annual chance flood event determined by detailed methods. Base flood elevations are shown within these zones. Mandatory flood insurance purchase requirements apply. (Zone AE is on new and revised maps in place of Zones A1-A30.)

Zone AO: Areas subject to inundation by one-percent annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet. Average flood depths derived from detailed hydraulic analyses are shown within this zone. Mandatory flood insurance purchase requirements apply.

Zone AH: Areas subject to inundation by one-percent annual chance shallow flooding (usually areas of ponding) where average depths are 1-3 feet. Average flood depths derived from detailed hydraulic analyses are shown within this zone. Mandatory flood insurance purchase requirements apply.

Zone AR: Areas that result from the decertification of a previously accredited flood protection system that is determined to be in the process of being restored to provide base flood protection. Mandatory flood insurance purchase requirements apply.

Note: The IDNR model ordinance defined "appeal" as both an appeal of the administrator's decision and a variance application. This definition has been altered to be in conformance with the use of the term "appeal" common to zoning ordinances.

4.5 Flood Hazard Area (FH-OL) (cont.)

Zone A99: Areas subject to inundation by the one-percent annual chance flood event, but which will ultimately be protected upon completion of an under-construction federal flood protection system. These are areas of special flood hazard where enough progress has been made on the construction of a protection system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes. Zone A99 may only be used when the flood protection system has reached specified statutory progress toward completion. No base flood elevations or depths are shown. Mandatory flood insurance purchase requirements apply.

Accessory structure: (appurtenant structure) means a structure that is located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Accessory structures should constitute a minimal initial investment, may not be used for human habitation, and be designed to have minimal flood damage potential. Examples of accessory structures are detached garages, carports, storage sheds, pole barns, and hay sheds.

Addition: (to an existing structure) means any walled and roofed expansion to the perimeter of a structure in which the addition is connected by a common load-bearing wall other than a firewall. Any walled and roofed addition, which is connected by a firewall or is separated by independent perimeter load-bearing walls, is new construction.

Appeal: means a request for a review of the floodplain administrator's interpretation of any provision of this ordinance.

Area of shallow flooding: means a designated AO or AH Zone on the community's Flood Insurance Rate Map (FIRM) with base flood depths from one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Base Flood Elevation (BFE): means the elevation of the one-percent annual chance flood.

Basement: means that portion of a structure having its floor sub-grade (below ground level) on all sides.

Building: see "Structure."

Community: means a political entity that has the authority to adopt and enforce floodplain ordinances for the area under its jurisdiction.

Community Rating System (CRS): means a program developed by the Federal Insurance Administration to provide incentives for those communities in the Regular Program that have gone beyond the minimum floodplain management requirements to develop extra measures to provide protection from flooding.

Critical facility: means a facility for which even a slight chance of flooding might be too great. Critical facilities include, but are not limited to, schools, nursing homes, hospitals, police, fire, and emergency response installations, installations which produce, use or store hazardous materials or hazardous waste.

4.5 Flood Hazard Area (FH-OL) (cont.)



Development: means any man-made change to improved or unimproved real estate including but not limited to:

- a. construction, reconstruction, or placement of a structure or any addition to a structure;
- b. installing a manufactured home on a site, preparing a site for a manufactured home or installing recreational vehicle on a site for more than 180 days;
- c. installing utilities, erection of walls and fences, construction of roads, or similar projects;
- d. construction of flood control structures such as levees, dikes, dams, channel improvements, etc.;
- e. mining, dredging, filling, grading, excavation, or drilling operations;
- f. construction and/or reconstruction of bridges or culverts;
- g. storage of materials; or
- h. any other activity that might change the direction, height, or velocity of flood or surface waters.

“Development” does not include activities such as the maintenance of existing structures and facilities such as painting, reroofing; resurfacing roads; or gardening, plowing, and similar agricultural practices that do not involve filling, grading, excavation, or the construction of permanent structures.

Elevated structure: means a non-basement structure built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, or columns (posts and piers).

Elevation Certificate: is a certified statement that verifies a structure’s elevation information.

Emergency Program: means the first phase under which a community participates in the NFIP. It is intended to provide a first layer amount of insurance at subsidized rates on all insurable structures in that community before the effective date of the initial FIRM.

Encroachment: means the advance or infringement of uses, fill, excavation, buildings, permanent structures or development into a floodplain, which may impede or alter the flow capacity of a floodplain.

Existing Construction: means any structure for which the “start of construction” commenced before the effective date of the community’s first floodplain ordinance.

Existing manufactured home park or subdivision: means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the community’s first floodplain ordinance.

Expansion to an existing manufactured home park or subdivision: means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

4.5 Flood Hazard Area (FH-OL) (cont.)

FEMA: means the Federal Emergency Management Agency.

Five-hundred year flood (500-year flood): means the flood that has a 0.2 percent chance of being equaled or exceeded in any year.

Flood: means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow, the unusual and rapid accumulation, or the runoff of surface waters from any source.

Flood Boundary and Floodway Map (FBFM): means an official map on which the Federal Emergency Management Agency (FEMA) or Federal Insurance Administration (FIA) has delineated the areas of flood hazards and regulatory floodway.

Flood Hazard Boundary Map (FHBM): means an official map of a community, issued by FEMA, where the boundaries of the areas of special flood hazard have been identified as Zone A.

Flood Insurance Rate Map (FIRM): means an official map of a community, on which FEMA has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

Flood Insurance Study (FIS): is the official hydraulic and hydrologic report provided by FEMA. The report contains flood profiles, as well as the FIRM, FBFM (where applicable), and the water surface elevation of the base flood.

Floodplain: means the channel proper and the areas adjoining any wetland, lake or watercourse which have been or hereafter may be covered by the regulatory flood. The floodplain includes both the floodway and the fringe districts.

Floodplain management: means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

Floodplain management regulations: means this ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, and other applications of police power which control development in flood-prone areas. This term describes federal, state, or local regulations in any combination thereof, which provide standards for preventing and reducing flood loss and damage. Floodplain management regulations are also referred to as floodplain regulations, floodplain ordinance, flood damage prevention ordinance, and floodplain management requirements.

Flood Protection Grade (FPG): is the elevation of the regulatory flood plus two feet at any given location in the SFHA. (see “Freeboard”)

Floodproofing (dry floodproofing): is a method of protecting a structure that ensures that the structure, together with attendant utilities and sanitary facilities, is watertight to the floodproofed design elevation with walls that are substantially impermeable to the passage of water. All structural components of these walls are capable of resisting

4.5 Flood Hazard Area (FH-OL) (cont.)

hydrostatic and hydrodynamic flood forces, including the effects of buoyancy, and anticipated debris impact forces.

Floodproofing certificate: is a form used to certify compliance for non-residential structures as an alternative to elevating structures to or above the FPG. This certification must be by a Registered Professional Engineer or Architect.

Floodway: is the channel of a river or stream and those portions of the floodplains adjoining the channel which are reasonably required to efficiently carry and discharge the peak flood flow of the regulatory flood of any river or stream.

Freeboard: means a factor of safety, usually expressed in feet above the BFE, which is applied for the purposes of floodplain management. It is used to compensate for the many unknown factors that could contribute to flood heights greater than those calculated for the base flood.

Fringe: is those portions of the floodplain lying outside the floodway.

Functionally dependent facility: means a facility which cannot be used for its intended purpose unless it is located or carried out in close proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, ship repair, or seafood processing facilities. The term does not include long-term storage, manufacture, sales, or service facilities.

Hardship: (as related to variances of this ordinance) means the exceptional hardship that would result from a failure to grant the requested variance. The Board of Zoning Appeals of jurisdiction requires that the variance is exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is NOT exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one's neighbors likewise cannot, as a rule, qualify as an exceptional hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

Highest adjacent grade: means the highest natural elevation of the ground surface, prior to the start of construction, next to the proposed walls of a structure.

Historic structure: means any structure individually listed on the National Register of Historic Places or the Indiana State Register of Historic Sites and Structures.

Increased Cost of Compliance (ICC): means the cost to repair a substantially damaged structure that exceeds the minimal repair cost and that is required to bring a substantially damaged structure into compliance with the local flood damage prevention ordinance. Acceptable mitigation measures are elevation, relocation, demolition, or any combination thereof. All renewal and new business flood insurance policies with effective dates on or after June 1, 1997, will include ICC coverage.

4.5 Flood Hazard Area (FH-OL) (cont.)

Letter of Map Amendment (LOMA): means an amendment to the currently effective FEMA map that establishes that a property is not located in a SFHA. A LOMA is only issued by FEMA.

Letter of Map Revision (LOMR): means an official revision to the currently effective FEMA map. It is issued by FEMA and changes flood zones, delineations, and elevations.

Letter of Map Revision Based on Fill (LOMR-F): means an official revision by letter to an effective NFIP map. A LOMR-F provides FEMA's determination concerning whether a structure or parcel has been elevated on fill above the BFE and excluded from the SFHA.

Lowest adjacent grade: means the lowest elevation, after completion of construction, of the ground, sidewalk, patio, deck support, or basement entryway immediately next to the structure.

Lowest floor: means the lowest of the following:

- a. the top of the lowest level of the structure;
- b. the top of the basement floor;
- c. the top of the garage floor, if the garage is the lowest level of the structure;
- d. the top of the first floor of a structure elevated on pilings or pillars;
- e. the top of the first floor of a structure constructed with a crawl space, provided that the lowest point of the interior grade is at or above BFE and construction meets all applicable requirements; or
- f. the top of the floor level of any enclosure, other than a basement, below an elevated structure where the walls of the enclosure provide any resistance to the flow of flood waters unless:
 - i. the walls are designed to automatically equalize the hydrostatic flood forces on the walls by allowing for the entry and exit of flood waters, by providing a minimum of two openings (in addition to doorways and windows) having a total net area of one (1) square inch for every one square foot of enclosed area. The bottom of all such openings shall be no higher than one (1) foot above grade; and,
 - ii. such enclosed space shall be usable solely for the parking of vehicles and building access.

Manufactured home: means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle."

Manufactured home park or subdivision: means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Map amendment: means a change to an effective NFIP map that results in the exclusion from the SFHA of an individual structure or a legally described parcel of land that has been inadvertently included in the SFHA (i.e., no alterations of topography have occurred since the date of the first NFIP map that showed the structure or parcel to be within the SFHA).

4.5 Flood Hazard Area (FH-OL) (cont.)



Map panel number: is the four-digit number followed by a letter suffix assigned by FEMA on a flood map. The first four digits represent the map panel, and the letter suffix represents the number of times the map panel has been revised. (The letter “A” is not used by FEMA, the letter “B” is the first revision.)

Market value: means the building value, excluding the land (as agreed to between a willing buyer and seller), as established by what the local real estate market will bear. Market value can be established by independent certified appraisal, replacement cost depreciated by age of building (actual cash value), or adjusted assessed values.

Mitigation: means sustained actions taken to reduce or eliminate long-term risk to people and property from hazards and their effects. The purpose of mitigation is two fold: to protect people and structures, and to minimize the cost of disaster response and recovery.

National Flood Insurance Program (NFIP): is the federal program that makes flood insurance available to owners of property in participating communities nationwide through the cooperative efforts of the Federal Government and the private insurance industry.

National Geodetic Vertical Datum (NGVD) of 1929: as corrected in 1929 is a vertical control used as a reference for establishing varying elevations within the floodplain.

New construction: means any structure for which the “start of construction” commenced after the effective date of the community’s first floodplain ordinance.

New manufactured home park or subdivision: means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of the community’s first floodplain ordinance.

North American Vertical Datum of 1988 (NAVD 88): as adopted in 1993 is a vertical control datum used as a reference for establishing varying elevations within the floodplain.

Obstruction: includes, but is not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, canalization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation, or other material in, along, across or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water; or due to its location, its propensity to snare or collect debris carried by the flow of water, or its likelihood of being carried downstream.

One-hundred year flood (100-year flood): is the flood that has a one percent (1%) chance of being equaled or exceeded in any given year. Any flood zone that begins with the letter A is subject to the one-percent annual chance flood. See “Regulatory Flood”.

4.5 Flood Hazard Area (FH-OL) (cont.)

One-percent annual chance flood: is the flood that has a one percent (1%) chance of being equaled or exceeded in any given year. Any flood zone that begins with the letter A is subject to the one-percent annual chance flood. See “Regulatory Flood”.

Participating community: is any community that voluntarily elects to participate in the NFIP by adopting and enforcing floodplain management regulations that are consistent with the standards of the NFIP.

Physical Map Revision (PMR): is an official republication of a community’s FEMA map to effect changes to base (1-percent annual chance) flood elevations, floodplain boundary delineations, regulatory floodways, and planimetric features. These changes typically occur as a result of structural works or improvements, annexations resulting in additional flood hazard areas, or correction to base flood elevations or SFHAs.

Post-FIRM construction: means construction or substantial improvement that started on or after the effective date of the initial FIRM of the community or after December 31, 1974, whichever is later.

Pre-FIRM construction: means construction or substantial improvement, which started on or before December 31, 1974, or before the effective date of the initial FIRM of the community, whichever is later.

Probation: is a means of formally notifying participating communities of violations and deficiencies in the administration and enforcement of the local floodplain management regulations.

Public safety and nuisance: anything which is injurious to the safety or health of an entire community, neighborhood or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

Recreational vehicle: means a vehicle which is (1) built on a single chassis; (2) 400 square feet or less when measured at the largest horizontal projections; (3) designed to be selfpropelled or permanently towable by a light duty truck; and (4) designed primarily not for use as a permanent dwelling, but as quarters for recreational camping, travel, or seasonal use.

Regular program: means the phase of the community’s participation in the NFIP where more comprehensive floodplain management requirements are imposed and higher amounts of insurance are available based upon risk zones and elevations determined in a FIS.

Regulatory flood: means the flood having a one percent (1%) chance of being equaled or exceeded in any given year, as calculated by a method and procedure that is acceptable to and approved by the Indiana Department of Natural Resources and the Federal Emergency Management Agency. The regulatory flood elevation at any location is as defined in Section 4.5(C)(7) of this ordinance. The “Regulatory Flood” is also known by the term “Base Flood”, “One-Percent Annual Chance Flood”, and “100-Year Flood”.

4.5 Flood Hazard Area (FH-OL) (cont.)



Repetitive loss: means flood-related damages sustained by a structure on two separate occasions during a 10-year period ending on the date of the event for which the second claim is made, in which the cost of repairing the flood damage, on the average, equaled or exceeded 25% of the market value of the structure at the time of each such flood event.

Section 1316: is that section of the National Flood Insurance Act of 1968, as amended, which states that no new flood insurance coverage shall be provided for any property that the Administrator finds has been declared by a duly constituted state or local zoning authority or other authorized public body to be in violation of state or local laws, regulations, or ordinances that intended to discourage or otherwise restrict land development or occupancy in flood-prone areas.

Special Flood Hazard Area (SFHA): means those lands within the jurisdictions of the City of Columbus and Bartholomew County subject to inundation by the regulatory flood. The SFHAs of the City are generally identified as such on the Flood Insurance Rate Map of the City of Columbus prepared by the Federal Emergency Management Agency and dated February 19, 1997. The SFHAs of the County are generally identified as such on the Flood Insurance Rate Map of Bartholomew County prepared by the Federal Emergency Management Agency and dated March 15, 1982. (These areas are shown on a FHBM or FIRM as Zone A, AE, A1-A30, AH, AR, A99, or AO).

Start of construction: includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of a structure (including a manufactured home) on a site, such as the pouring of slabs or footing, installation of piles, construction of columns, or any work beyond the stage of excavation for placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, foundations, or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure: means a structure that is principally above ground and is enclosed by walls and a roof. The term includes a gas or liquid storage tank, a manufactured home, or a prefabricated building. The term also includes recreational vehicles to be installed on a site for more than 180 days.

Substantial damage: means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 40 percent of the market value of the structure before the damage occurred.

Increased Requirement: *The IDNR model ordinance uses a 50% threshold in the definitions of "substantial damage" and "substantial improvement".*

4.5 Flood Hazard Area (FH-OL) (cont.)

Substantial improvement: means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 40 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures that have incurred "repetitive loss" or "substantial damage" regardless of the actual repair work performed. The term does not include improvements of structures to correct existing violations of state or local health, sanitary, or safety code requirements or any alteration of a "historic structure", provided that the alteration will not preclude the structures continued designation as a "historic structure".

Suspension: means the removal of a participating community from the NFIP because the community has not enacted and/or enforced the proper floodplain management regulations required for participation in the NFIP.

Variance: is a grant of relief from the requirements of this ordinance, which permits construction in a manner otherwise prohibited by this ordinance where specific enforcement would result in unnecessary hardship.

Violation: means the failure of a structure or other development to be fully compliant with this ordinance. A structure or other development without the elevation, other certification, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

Watercourse: means a lake, river, creek, stream, wash, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

Water surface elevation: means the height, in relation to the North American Vertical Datum of 1988 (NAVD 88) or National Geodetic Vertical Datum of 1929 (NGVD) (other datum where specified) of floods of various magnitudes and frequencies in the floodplains of riverine areas.

X zone: means the area where the flood hazard is less than that in the SFHA. Shaded X zones shown on recent FIRMs (B zones on older FIRMs) designate areas subject to inundation by the flood with a 0.2 percent chance of being equaled or exceeded (the 500-year flood). Unshaded X zones (C zones on older FIRMs) designate areas where the annual exceedance probability of flooding is less than 0.2 percent.

Zone: means a geographical area shown on a FHBM or FIRM that reflects the severity or type of flooding in the area.

Zone A: (see definition for A zone)

4.5 Flood Hazard Area (FH-OL) (cont.)



Zone B, C, and X: means areas identified in the community as areas of moderate or minimal hazard from the principal source of flood in the area. However, buildings in these zones could be flooded by severe, concentrated rainfall coupled with inadequate local drainage systems. Flood insurance is available in participating communities but is not required by regulation in these zones (Zone X is used on new and revised maps in place of Zones B and C).

C. General Provisions: The following general provisions shall apply to this Chapter.

1. **Applicability:** This ordinance shall apply to all SFHAs within the jurisdiction of the City of Columbus and Bartholomew County.
2. **Compliance:** No structure shall be located, extended, converted or structurally altered within the SFHA without full compliance with the terms of this Chapter and other applicable regulations. No land or stream within the SFHA shall hereafter be altered without full compliance with the terms of this chapter and other applicable regulations.
3. **Abrogation and Greater Restrictions:** This Chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Chapter and other ordinances or regulations conflict or overlap, whichever imposes the more stringent restrictions shall prevail.
4. **Severability:** If any section, clause, or phrase of this Chapter is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way effect the validity of the remaining portions of this Chapter.
5. **Interpretation:** In the interpretation and application of this Chapter all provisions shall be:
 - a. considered as minimum requirements;
 - b. liberally construed in favor of the governing body; and,
 - c. deemed neither to limit nor repeal any other powers granted under state statutes.
6. **Warning and Disclaimer of Liability:** The degree of flood protection required by this Chapter is considered reasonable for regulatory purposes and is based on available information derived from engineering and scientific methods of study. Larger floods can and will occur on rare occasions. Therefore, this chapter does not create any liability on the part of the City of Columbus, Bartholomew County, the Indiana Department of Natural Resources, or the State of Indiana for any flood damage that results from reliance on this Chapter or any lawfully made administrative decision.

4.5 Flood Hazard Area (FH-OL) (cont.)

Note: The specific penalties for violations provided by the IDNR model ordinance have been omitted in favor of a reference to Article 13 of this Ordinance. This alteration is intended to ensure consistent enforcement of all requirements of this Ordinance.

7. Basis for Establishing Regulatory Flood Data: This Chapter's protection standard is the regulatory flood. The best available regulatory flood data is listed below. Whenever a party disagrees with the best available data, the party submitting the detailed engineering study needs to replace existing data with better data and submit it to the Indiana Department of Natural Resources for review and approval.
 - a. The regulatory flood elevation, floodway, and fringe limits for the studied SFHAs of the City and its extraterritorial jurisdiction (as applicable) shall be as delineated on the 100 year flood profiles in the Flood Insurance Study of the City of Columbus dated January 5, 1996, and the corresponding Flood Insurance Rate Map dated February 19, 1997 prepared by the Federal Emergency Management Agency.
 - b. The regulatory flood elevation, floodway, and fringe limits of studied SFHAs of the County shall be as delineated on the 100 year flood profiles in the Flood Insurance Study of Bartholomew County dated September 15, 1981 and the corresponding Flood Boundary Floodway Map dated March 15, 1982 prepared by the Federal Emergency Management Agency.
 - c. The regulatory flood elevation, floodway, and fringe limits for each of the remaining SFHAs delineated as an "A Zone" on the Flood Insurance Rate Map of the City of Columbus and the Flood Insurance Rate Map of Bartholomew County shall be according to the best data available as provided by the Indiana Department of Natural Resources.
8. Mapped Floodplain / Actual Ground Elevation Discrepancies: In cases where there is a discrepancy between the mapped floodplain (SFHA) on the FIRM and the actual ground elevations, the elevation provided on the profiles shall govern.
 - a. If the elevation of the site in question is below the base flood elevation, that site shall be included in the SFHA and regulated accordingly.
 - b. If the elevation (natural grade) of the site in question is above the base flood elevation, that site shall be considered outside the SFHA and the floodplain regulations will not be applied. The property owner should be advised to apply for a LOMA.
9. Violations: Failure to obtain a Floodplain Development Permit in the SFHA or failure to comply with the requirements of a Floodplain Development Permit or conditions of a variance shall be deemed to be a violation of this Ordinance. All violations shall be subject to the provisions of Article 13, Enforcement & Penalties of this Ordinance.

4.5 Flood Hazard Area (FH-OL) (cont.)

4

Overlay Zoning Districts

D. **Administration:** The Planning Director, the Chief Code Enforcement Officer, and their designees shall administer and implement the provisions of this Chapter and be referred to as the Floodplain Administrators. The Planning Director shall be responsible for the implementation of this Chapter with regard to subdivision requests and development for which a Zoning Compliance Certificate is required. The Chief Code Enforcement Officer shall be responsible for the implementation of this Chapter with regard to construction of all 1 and 2 family residences and all other construction for which a Zoning Compliance Certificate is not required.

1. **Floodplain Development Permit Established:** A Floodplain Development Permit shall be required in conformance with the provisions of this Chapter prior to the commencement of any development activities in areas of special flood hazard.
 - a. *Floodplain Alteration with other Construction:* The Floodplain Development Permit shall be included as an element of any Improvement Location Permit required by this Ordinance in all instances where floodplain alterations (filling, grading, etc.) and other improvements (construction of a structure, etc.) are to be permitted simultaneously.
 - b. *Floodplain Alteration without other Construction:* The Floodplain Development Permit shall follow the procedures for a Zoning Compliance Certificate when applied for independently of other improvements (such as the placement of fill or other alterations not immediately including construction of a structure).
2. **Floodplain Development Permit Procedures:** Application for a Floodplain Development Permit shall be made to the appropriate Floodplain Administrator prior to any development activities, and may include, but not be limited to, the following information drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing and/or proposed structures; earthen fill; storage of materials or equipment; and drainage facilities. Specifically the following information is required:
 - a. *Application Stage:*
 - i. A description of the proposed development;
 - ii. Location of the proposed development sufficient to accurately locate property and structure in relation to existing roads and streams;
 - iii. A legal description of the property site;
 - iv. A site plan showing existing and proposed development locations and existing and proposed land grades;
 - v. Elevation of the top of the lowest floor (including basement) of all proposed buildings. Elevation should be in NAVD 88 or NGVD 1929;
 - vi. Elevation (in NAVD 88 or NGVD 1929) to which any non-residential structure will be floodproofed; and

Note: The division of duties between the Planning Director and the Chief Code Enforcement Officer is unique to Columbus and Bartholomew County. These statements supplement the text of the IDNR model ordinance.

Note: The IDNR model ordinance refers only to a Floodplain Development Permit. Sub-sections 3(a) and 3(b) have been added to ensure a coordinated and efficient local review process.

Note: The description of the duties of the administrators have been reorganized from the IDNR model ordinance to eliminate duplicate text.

4.5 Flood Hazard Area (FH-OL) (cont.)

- vii. Description of the extent to which any watercourse will be altered or related as a result of proposed development.
 - b. *Construction Stage:* Upon placement of the lowest floor; or floodproofing, it shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the NAVD 88 or NGVD elevation of the lowest floor or floodproofed elevation, as built. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by the same. When floodproofing is utilized for a particular structure said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. Any work undertaken prior to submission of the certification shall be at the permit holders' risk. (The Floodplain Administrator shall review the lowest floor and floodproofing elevation survey data submitted.) The permit holder shall correct deficiencies detected by such review before any further work is allowed to proceed. Failure to submit the survey or failure to make required corrections shall be cause to issue a stop-work order for the project.
- 3. Duties and Responsibilities of the Floodplain Administrators: The Floodplain Administrators and/or designated staff is authorized and directed to enforce the provisions of this Chapter. The administrators are further authorized to render interpretations of this Chapter, which are consistent with its spirit and purpose. Duties and responsibilities of the Floodplain Administrator shall include, but not be limited to:
 - a. *Ensure Compliance:* Review all Floodplain Development Permits and certified plans and specifications to assure that the requirements of this Chapter have been satisfied;
 - b. *Determine Damage:* Inspect and inventory damaged structures in SFHAs and complete substantial damage determinations;
 - c. *Ensure Authorization:* Ensure that construction authorization has been granted by the Indiana Department of Natural Resources for all development projects subject to Sections 4.5(I) and K(1) of this Chapter, and maintain a record of such authorization (either copy of actual permit or floodplain analysis/regulatory assessment).
 - d. *Maintain Permits:* Ensure that all necessary federal and/or state permits have been received prior to issuance of the local Floodplain Development Permit. Copies of such permits are to be maintained on file with the Floodplain Development Permit;

4.5 Flood Hazard Area (FH-OL) (cont.)

- e. *Provide Notice of Watercourse Relocation:* Notify the State Floodplain Coordinator prior to any alteration or relocation of a watercourse, and submit copies of such notifications to FEMA;
 - f. *Provide Data:* Maintain for public inspection and furnish upon request local permit documents, damaged structure inventories, substantial damage determinations, regulatory flood data, SFHA maps, Letters of Map Amendment (LOMA), Letters of Map Revision (LOMR), copies of DNR permits and floodplain analysis and regulatory assessments (letters of recommendation), federal permit documents, and “as-built” elevation and floodproofing data for all buildings constructed subject to this Chapter.
 - g. *Apply Map Revisions:* Utilize and enforce all Letters of Map Revision (LOMR) or Physical Map Revisions (PMR) issued by FEMA for the currently effective SFHA maps of the community.
 - h. *Verify Lowest Floor Elevations:* Verify and record the actual elevation of the lowest floor (including basement) of all new or substantially improved structures, in accordance with Section 4.5(D)(1); and
 - i. *Verify Floodproofing:* Verify and record the actual elevation to which any new or substantially improved structures have been floodproofed, in accordance with Section 4.5(D)(1); and
 - j. *Assure Maintenance:* Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- E. **General Standards for Flood Hazard Reduction:** In all SFHAs and 500-year floodplain areas the following provisions are required. Any alteration, repair, reconstruction or improvements to a structure that is in compliance with the provisions of this Chapter shall meet the requirements of “new construction” as contained in this Chapter. Any alteration, repair, reconstruction or improvement to a structure that is not in compliance with the provisions of this Chapter, shall be undertaken only if said non-conformity is not further, extended, or replaced.
- 1. **General Anchoring Required:** New construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure;
 - 2. **Manufactured Home Anchoring Required:** Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces;

Increased Requirement: *The IDNR model ordinance provides standards for flood hazard reduction in the SFHAs (100-year floodplains) only. This ordinance extends those same regulations to the 500-year floodplain.*

Increased Requirement: The IDNR model ordinance provides standards for flood hazard reduction in the SFHAs (100-year floodplains) only. This ordinance extends those same regulations to the 500-year floodplain (Zone AE and X Shaded for the City of Columbus and Zone A and Zone B for Bartholomew County).

Increased Requirement: The IDNR model ordinance permits structural alterations that equal or exceed 50% of the value of the pre-altered structure and repairs to a damaged structure that are valued at more than 50% of the market value.

4.5 Flood Hazard Area (FH-OL) (cont.)

3. Flood Resistance Required: New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage below the FPG;
4. Flood Damage Minimized: New construction and substantial improvements shall be constructed by methods and practices that minimize flood damage;
5. Service Facilities Protected: Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
6. Water Supply Systems Protected: New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
7. Sanitary Sewage Systems Protected: New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
8. On-site Waste Disposal Protected: On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding;

F. Specific Standards for Flood Hazard Reduction: In all SFHAs, and 500-year floodplain areas the following provisions are required:

1. Standards for all Structures: In addition to the requirements of Section 4.5(E), all structures to be located in the SFHA shall be protected from flood damage below the FPG. This building protection requirement applies to the following situations:
 - a. Construction or placement of any new structure having a floor area greater than 400 square feet;
 - b. Structural alterations made to:
 - i. an existing (previously unaltered structure), the cost of which equals or exceeds 40% of the value of the pre-altered structure (excluding the value of the land);
 - ii. any previously altered structure
 - c. Reconstruction or repairs made to a damaged structure that are valued at more than 40% of the market value of the structure (excluding the value of the land) before damaged occurred;
 - d. Installing a travel trailer or recreational vehicle on a site for more than 180 days; and
 - e. Installing a manufactured home on a new site or a new manufactured home on an existing site. This ordinance does not apply to returning the existing manufactured home to the same site it lawfully occupied before it was removed to avoid flood damage; and
 - f. Reconstruction or repairs made to a repetitive loss structure.

4.5 Flood Hazard Area (FH-OL) (cont.)



2. Residential Structures: New construction or substantial improvement of any residential structure (or manufactured home) shall have the lowest floor; including basement, at or above the FPG (two feet above the base flood elevation). Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of floodwaters shall be provided in accordance with the standards of Section 4.5(F)(4).
3. Non-Residential Structures: New construction or substantial improvement of any commercial, industrial, or non-residential structure (or manufactured home) shall have the lowest floor, including basement, elevated to or above the FPG (two feet above the base flood elevation). Structures located in all “A Zones” and 500-year floodplain areas may be floodproofed in lieu of being elevated if done in accordance with the following:
 - a. A Registered Professional Engineer or Architect shall certify that the structure has been designed so that below the FPG, the structure and attendant utility facilities are watertight and capable of resisting the effects of the regulatory flood. The structure design shall take into account flood velocities, duration, rate of rise, hydrostatic pressures, and impacts from debris or ice. Such certification shall be provided to the official as set forth in Section 4.5(D)(3)(i).
 - b. Floodproofing measures shall be operable without human intervention and without an outside source of electricity.
4. Elevated Structures: New construction or substantial improvements of elevated structures that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevations shall be designed to preclude finished living space and designed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.
 - a. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:
 - i. provide a minimum of two openings having a total net area of not less than one square inch for every one square foot of enclosed area; and
 - ii. the bottom of all openings shall be no higher than one foot above foundation interior grade (which must be equal to in elevation or higher than the exterior foundation grade); and
 - iii. openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.

4.5 Flood Hazard Area (FH-OL) (cont.)

- iv. access to the enclosed area shall be the minimum necessary to allow for parking for vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator); and
 - v. the interior portion of such enclosed area shall not be partitioned or finished into separate rooms; and
 - vi. portions of the building below the flood protection grade must be constructed with materials resistant to flood damage.
5. Structures Constructed on Fill: A residential or nonresidential structure may be constructed on a permanent land fill in accordance with the following:
- a. The fill shall be placed in layers no greater than 1 foot deep before compacting to 95% of the maximum density obtainable with the Standard Proctor Test method.
 - b. The fill should extend at least ten feet beyond the foundation of the structure before sloping below the FPG.
 - c. The fill shall be protected against erosion and scour during flooding by vegetative cover, riprap, or bulkheading. If vegetative cover is used, the slopes shall be no steeper than 3 horizontal to 1 vertical.
 - d. The fill shall not adversely affect the flow of surface drainage from or onto neighboring properties.
 - e. The top of the lowest floor including basements shall be at or above the FPG.
6. Structures Constructed with a Crawlspace: A residential or nonresidential structure may be constructed with a crawlspace located below the flood protection grade provided that the following conditions are met:
- a. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy; and
 - b. Any enclosed area below the flood protection grade shall have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. Provide a minimum of two openings having a total net area of not less than one square inch for every one square foot of enclosed area. The bottom of the openings shall be no more than one foot above grade; and
 - c. Utility systems within the crawlspace must be elevated above the flood protection grade.
 - d. The interior height of the crawlspace measured from the interior grade of the crawlspace to the top of the foundation wall must not exceed four feet at any point; and

4.5 Flood Hazard Area (FH-OL) (cont.)



- e. An adequate drainage system must be installed to remove floodwaters from the interior area of the crawlspace within a reasonable period of time after a flood event; and
 - f. Portions of the building below the flood protection grade must be constructed with materials resistant to flood damage; and
 - g. The interior grade of the crawlspace must be at or above the base flood elevation.
7. **Manufactured Homes and Recreational Vehicles:** Manufactured homes and recreational vehicles to be installed or substantially improved on a site for more than 180 days must meet one of the following requirements:
- a. The manufactured home shall be elevated on a permanent foundation such that the lowest floor shall be at or above the FPG and securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement. This requirement applies to all manufactured homes to be placed on a site;
 - i. outside a manufactured home park or subdivision;
 - ii. in a new manufactured home park or subdivision;
 - iii. in an expansion to an existing manufactured home park or subdivision; or
 - iv. in an existing manufactured home park or subdivision on which a manufactured home has incurred “substantial damage” as a result of a flood.
 - b. The manufactured home shall be elevated so that the lowest floor of the manufactured home chassis is supported by reinforced piers or other foundation elevations that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement. This requirement applies to all manufactured homes to be placed on a site in an existing manufactured home park or subdivision that has not been substantially damaged by a flood.
 - c. Recreational vehicles placed on a site shall either:
 - i. be on site for less than 180 days; and,
 - ii. be fully licensed and ready for highway use (defined as being on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions); or
 - iii. meet the requirements for “manufactured homes” as stated earlier in this section.
- G. **Standards for Subdivision Proposals:** All subdivision proposals shall be consistent with the need to minimize flood damage.
- 1. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;

4.5 Flood Hazard Area (FH-OL) (cont.)

2. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards, and;
3. Base flood elevation data shall be provided for subdivision proposals and other proposed development (including manufactured home parks and subdivisions), which is greater than the lesser of fifty lots or five acres.

H. **Standards for Critical Facilities:** Construction of new critical facilities shall be, to the extent possible, located outside the limits of the SFHA. Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated to or above the FPG at the site. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the FPG shall be provided to all critical facilities to the extent possible.

I. **Standards for Identified Floodways:** Located within SFHAs, established in Section 4.5(C)(7), are areas designated as floodways. The floodway is an extremely hazardous area due to the velocity of floodwaters, which carry debris, potential projectiles, and has erosion potential. If the site is in an identified floodway, the Floodplain Administrators shall require the applicant to forward the application, along with all pertinent plans and specifications, to the Indiana Department of Natural Resources and apply for a permit for construction in a floodway.

1. **IDNR Permit Required:** Under the provisions of IC 14281 a permit for construction in a floodway from the Indiana Department of Natural Resources is required prior to the issuance of a local building permit for any excavation, deposit, construction or obstruction activity located in the floodway. This includes land preparation activities such as filling, grading, clearing and paving etc. undertaken before the actual start of construction of the structure. However, it does exclude non-substantial additions/improvements to existing (lawful) residences in a non-boundary river floodway. (IC 14-28-1-26 allows construction of non-substantial additions/ improvements to residences in a non-boundary river floodway without obtaining a permit for construction in the floodway from the Indiana Department of Natural Resources). Please note that if fill is needed to elevate an addition above the existing grade, prior approval (construction in a floodway permit) for the fill is required from the Indiana Department of Natural Resources.)
2. **Permit Procedure and Applicable Regulations:** No action shall be taken by the Floodplain Administrators until a permit (when applicable) has been issued by the Indiana Department of Natural Resources granting approval for construction in the flood-

4.5 Flood Hazard Area (FH-OL) (cont.)

way. Once a permit for construction in a floodway has been issued by the Indiana Department of Natural Resources, the Floodplain Administrator may issue the local Floodplain Development Permit, provided the provisions contained in Section 4.5(E) through (H) of this ordinance have been met. The Floodplain Development Permit cannot be less restrictive than the permit for construction in a floodway issued by the Indiana Department of Natural Resources. However, a community's more restrictive regulations (if any) shall take precedence.

3. **Flood Increase Criteria & Determination:** No development shall be allowed which acting alone or in combination with existing or future development, will increase the regulatory flood more than 0.14 of one foot. The increase in the regulatory flood resulting from any development shall be determined by IDNR as an element of the permit review process. In no instance shall the City of Columbus or Bartholomew County be assumed to have responsibility for this determination.
 4. **Procedures for Projects Involving Channel Modifications:** For all projects involving channel modifications the Planning Director shall request that the Federal Emergency Management Agency revise the regulatory flood data. Such request shall be included in the community's biennial report submission to the Federal Emergency Management Agency.
- J. **Standards for Identified Fringe:** If the site is located in an identified fringe, then the Floodplain Administrator may issue the local Floodplain Development Permit provided the provisions contained in Section 4.5(E) through (H) of this Chapter have been met. The key provision is that the top of the lowest floor of any new or substantially improved structure shall be at or above the FPG.
- K. **Standards for SFHAs Without Established Base Flood Elevation and/or Floodways/Fringes.**
1. **Significant Upstream Drainage:** If the site is in an identified floodplain where the limits of the floodway and fringe have not yet been determined, and the drainage area upstream of the site is greater than one square mile, the Floodplain Administrator shall require the applicant to forward the application, along with all pertinent plans and specifications, to the Indiana Department of Natural Resources for review and comment.
 - a. No action shall be taken by the Floodplain Administrator until either a permit for construction in a floodway or a floodplain analysis/regulatory assessment citing the 100 year flood elevation and the recommended Flood Protection Grade has been received from the Indiana Department of Natural Resources.

Note: The last 2 sentences of Section 4.5(I)(3) have been added to the IDNR model ordinance to clarify responsibility.

Note: The IDNR model ordinance indicates that the local community shall "submit the data" and request that FEMA revise the regulatory flood data in all instances of channel modifications or fill. The IDNR model ordinance contains no time frame or other parameters for this submittal. The model ordinance was modified for the purpose of clarity and consistency.

4.5 Flood Hazard Area (FH-OL) (cont.)

- b. Once the Floodplain Administrator has received the proper permit for construction in a floodway or floodplain analysis/regulatory assessment approving the proposed development, a Floodplain Development Permit may be issued provided the conditions of the Floodplain Development Permit are not less restrictive than the conditions received from the Indiana Department of Natural Resources and the provisions contained in Section 4.5(E) through (H) of this Chapter have been met.
 2. Insignificant Upstream Drainage: If the site is in an identified floodplain where the limits of the floodway and fringe have not yet been determined and the drainage area upstream of the site is less than one square mile, the Floodplain Administrator shall require the applicant to provide an engineering analysis showing the limits of the floodway, fringe and 100 year flood elevation for the site. Upon receipt, the Floodplain Administrator may issue the local Floodplain Development Permit, provided the provisions contained in Section 4.5(E) through (H) of this Chapter have been met.
 3. Review Criteria: The total cumulative effect of the proposed development, when combined with all other existing and anticipated development, shall not increase the regulatory flood more than 0.14 of one foot and will not increase flood damages or potential flood damages.
- L. **Appeals and Variances:** The Board of Zoning Appeals of jurisdiction (the board) shall hear and decide appeals and requests for variances from the requirements of this Chapter.
1. Appeals of Administrative Decisions: The board shall hear and decide appeals when it is alleged that an error in any requirement, decision, or determination is made by the Floodplain Administrator in the enforcement or administration of this Chapter.
 2. Variance Considerations: In considering any applications for variance from the requirements of this Chapter, the board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this Chapter, as well as;
 - a. The danger of life and property due to flooding or erosion damage;
 - b. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - c. The importance of the services provided by the proposed facility to the community;
 - d. The necessity to the facility of a waterfront location, where applicable;
 - e. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

4.5 Flood Hazard Area (FH-OL) (cont.)



- f. The compatibility of the proposed use with existing and anticipated development;
 - g. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
 - h. The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - i. The expected height, velocity, duration, rate of rise, and sediment of transport of the floodwaters at the site; and,
 - j. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.
3. Variance Conditions: The following conditions shall apply to the consideration of applicants for variance from the requirements of this Chapter.
- a. Variances shall only be issued when there is:
 - i. A showing of good and sufficient cause;
 - ii. A determination that failure to grant the variance would result in exceptional hardship; and,
 - iii. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud or victimization of the public, or conflict with existing laws or ordinances.
 - b. No variance for a residential use within a floodway subject to Section 4.5(I) of Section 4.5(K)(1) of this Chapter may be granted.
 - c. Any variance granted in a floodway subject to Section 4.5(I) of Section 4.5(K)(1) of this Chapter will require a permit from the Indiana Department of Natural Resources.
 - d. Variances to the requirements of Section 4.5(F), may be granted only when a new structure is to be located on a lot of one-half acre or less in size, contiguous to and surrounded by lots with existing structures constructed below the flood protection grade.
 - e. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 - f. Variances may be issued for the repair or rehabilitation of “historic structures” upon a determination that the proposed repair or rehabilitation will not preclude the structure’s continued designation as an “historic structure” and the variance is the minimum to preserve the historic character and design of the structure.
 - g. Upon the consideration of the factors listed in Section 4.5(L)(2), and the purposes of this Chapter, the board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Chapter.

4.5 Flood Hazard Area (FH-OL) (cont.)

4. Variance Notification: Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation and the elevation to which the lowest floor is to be built and stating that the cost of the flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. The written notice shall be signed by a community official and also state that:
 - a. The issuance of a variance to construct a structure below the base flood elevation will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage; and;
 - b. Such construction below the base flood level increases risks to life and property.
5. Appeal and Variance Reporting: The Floodplain Administrator shall maintain the records of appeal actions and report any variances to the Federal Emergency Management Agency or the Indiana Department of Natural Resources upon request. All variance actions, including justification for their issuance, shall be included in the community's biennial report submission to the Federal Emergency Management Agency.

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